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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,734	08/25/2003	Joji Iida	42530-5500	2154

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EXAMINER

JOERGER, KAITLIN S

ART UNIT	PAPER NUMBER
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3653

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/647,734

Applicant(s)

IIDA, JOJI

Examiner

Kaitlin S. Joerger

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6-12,14-18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-12,14-18 and 20 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/2/07 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-12, 14-18 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the limitation "the first signal" and "the control unit" in line 29. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hickey et al. (U.S. Patent 3,937,453).

Regarding claim 1, Hickey et al. teaches a compact banknote dispensing device, comprising:

a banknote supply storing section, 14, for storing one or more banknotes;

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a banknote transporting unit for transporting a stored banknote, the banknote transporting unit being adjacent to the banknote supply storing section for receiving a stored banknote from the banknote supply storing section, see figure 1,

wherein the banknote transporting unit includes a U-shaped transporting path including a first roller, 38, a guiding roller, 58, and a second transporting roller, 56, the first roller being adjacent to the banknote supply storing section, the guiding roller being adjacent the first roller to receive the banknote on a side opposite to the side of the first roller, the second roller being disposed on the side of the first roller on a side opposite to the guiding roller to enable the transported banknote to traverse a U-shaped path around the first roller, the guiding roller, and the second roller;

a banknote length sensor unit, 74, 76, 78, and 80, located within the banknote transporting unit adjacent to the U-shaped transporting path for detecting a length of transported banknotes; and

a dispensing slot for dispensing the transported banknotes, see figure 1,

wherein the banknote length sensor unit is adjacent to the U-shaped transporting 17 path, the banknote length sensor comprising a first banknote sensor, 74, and a second banknote sensor, 76, the first banknote sensor being adjacent to the first roller to detect the banknote as it is received by the first roller, the second banknote sensor being disposed between the guiding roller and the second roller so that the first sensor and the second sensor are spaced at a distance along the U-shaped transporting path that is less than the length of the shortest valid banknote.

The applicant is reminded the "Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus

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claim." See MPEP 2115. Therefore, the limitation that the first and second sensor are spaced at a distance along the transport path that is less than the length of the shortest valid banknote is not considered to hold patentable weight.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7, 8, 10, 12, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickey et al. (U.S. Patent 3,937,453) in view of Mochizuki et al. (U.S. Patent 6,536,761).

Regarding claim 20, Hickey et al. teaches a compact banknote dispensing device, comprising:

- a banknote supply storing section, 14, for storing one or more banknotes;
- a banknote discharging unit, 16, for discharging a banknote from the banknote supply storing section at a first predetermined speed, the banknote discharging unit being adjacent to the banknote supply storing section, see figure 1;

- a banknote transporting unit for receiving a discharged banknote from the banknote discharging unit and transporting the discharged banknote at a second predetermined speed from the banknote supply storing section, the second predetermined speed being faster than the first predetermined speed, see figure 1 and column 3, lines 11+,

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wherein the banknote transporting unit includes a first roller, 38, and a first pressing roller, 40, disposed adjacent to the banknote supply storing section, the first roller and the first pressing roller rotating oppositely and being arranged so their axes of rotation are parallel to each other, see figure 1, to conduct a discharged banknote between the first roller and the first pressing roller in a direction away from the banknote discharging unit;

a rejected banknote storing section, 67, adjacent to the banknote transporting unit;

a diverting unit, 66, for diverting a banknote from a first path to a second path, the first path being the normal banknote discharge path, the second path being the rejected banknote storage path;

and a fourth sensor, 80, for detecting the presence of a banknote adjacent the fourth sensor, the fourth sensor outputting a fourth signal to indicate successful passage of the received banknote through an intermediate position of the transporting unit, the intermediate position being along the transporting path at a distance from the first sensor which is less than the length of an acceptable discharged banknote,

wherein the first signal and the fourth signal are passed to the control unit, the control unit interpreting the first signal and the fourth signal detecting and non-detecting states to determine the length of the transported discharged banknote, the control unit activating the diverting unit to the non-diverting position when the discharged banknote length is within predetermined acceptable parameters, see column 3, line 54 through column 4, line 35, and

wherein the transporting unit includes a guiding unit, 59, 55, 54, and 60, for extending the travel path in a non-planar manner between the first and the fourth sensors to enable the

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banknote to be accurately measured while reducing the longitudinal length of the dispensing device, see figure 1.

Hickey et al. does not teach that the first roller and pressing roller have radial projections, wherein the radial projections of the first roller are interposed in the radial projections of the pressing rollers. Mochizuki et al. does teach this feature, see figure 7 and column 3, lines 39+.

It would have been obvious to one of ordinary skill in the art to design the first roller and pressing roller of Hickey et al. so that they were comprised of radial projections and taught by Mochizuki et al. in order to deform the banknote for the purpose of ensuring that the note does not become wound around the feed roller during transport.

Regarding claim 6, Hickey et al. further teaches:

a first sensor, 74, for detecting the presence of a banknote received by the transporting unit, the first sensor outputting a first signal to indicate the presence of the banknote adjacent to the first sensor;

a second sensor, 76, for detecting the presence of a banknote discharged by the transporting unit, the second sensor outputting a second signal to indicate the presence of the banknote adjacent to the second sensor; and

a control unit for receiving and processing the first signal and the second signal, the control unit comparing the first signal with the second signal to determine whether a banknote has successfully passed through the transporting unit, see column 3, line 54 through column 4, line 35.

Regarding claim 7, 9, and 10 Hickey et al. further teaches:

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a temporary storing section, 52, for receiving a predetermined number of discharged banknotes, the temporary storing section being arranged adjacent to the banknote transporting unit, wherein the predetermined number can be any number including four and nine,

wherein the second sensor is interposed between the banknote transporting unit and the temporary storing section to detect the passage of the discharged banknote into the temporary storing section, see figure 1.

Regarding claim 18, Hickey et al. does not teach that the first roller and pressing roller have six radial projections, wherein the radial projections of the first roller are interposed in the radial projections of the pressing rollers. Mochizuki et al. does teach this feature, see figure 7 and column 3, lines 39+.

It would have been obvious to one of ordinary skill in the art to design the first roller and pressing roller of Hickey et al. so that they were comprised of radial projections and taught by Mochizuki et al. in order to deform the banknote for the purpose of ensuring that the note does not become wound around the feed roller during transport. Further, it would have been obvious to include six radial projections on both the drive roller and the pressing roller in order to create more of a wavy shape for the purpose of ensuring that the bill travels along the transport path and does not become wound around the drive roller.

Allowable Subject Matter

Claims 2, 8, 11, 12, and 14-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

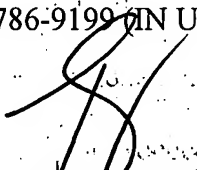
Response to Arguments

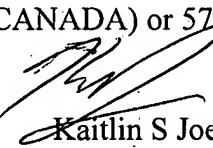
In light of the newly applied art, the previous indication of allowable subject has been withdrawn, therefore, claim 1 and 20 remain rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaitlin S. Joerger whose telephone number is 571-272-6938. The examiner can normally be reached on Monday - Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Mackey can be reached on 571-272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


PATRICK MACKEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600


Kaitlin S Joerger
Examiner
Art Unit 3653

19 April 2007